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ABSTRACT

This document consists of a learning activity packet (LAP) for the student and an instructor's guide for the teacher. The LAP is intended to acquaint occupational home economics students with organizing kitchen work areas to enable kitchen workers to move more efficiently and simplify their work by making good use of equipment, time, and energy. Illustrated information sheets and learning activities are provided on organizing work stations (efficient movement and organization) and simplifying work (using rhythmic and smooth-flowing motions, making both hands more productive, making hand and body motions short and simple, and using the assembly line concept). The instructor's guide begins with an instructional matrix in which the information sheets and written activities contained in the LAP and the written test items included in the instructor's guide are cross-referenced to the knowledge and skills objectives addressed by the materials. This is followed by a series of notes to instructors on the LAP series and related materials and suggested instructional procedures for use in conducting individual and group enrichment activities. A unit test and answer key are included. (MN)

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LEARNING
ACTIVITY
PACK

5.2

SECTION 5

Organizing Work Stations and Simplifying Work

Basic Food Preparation

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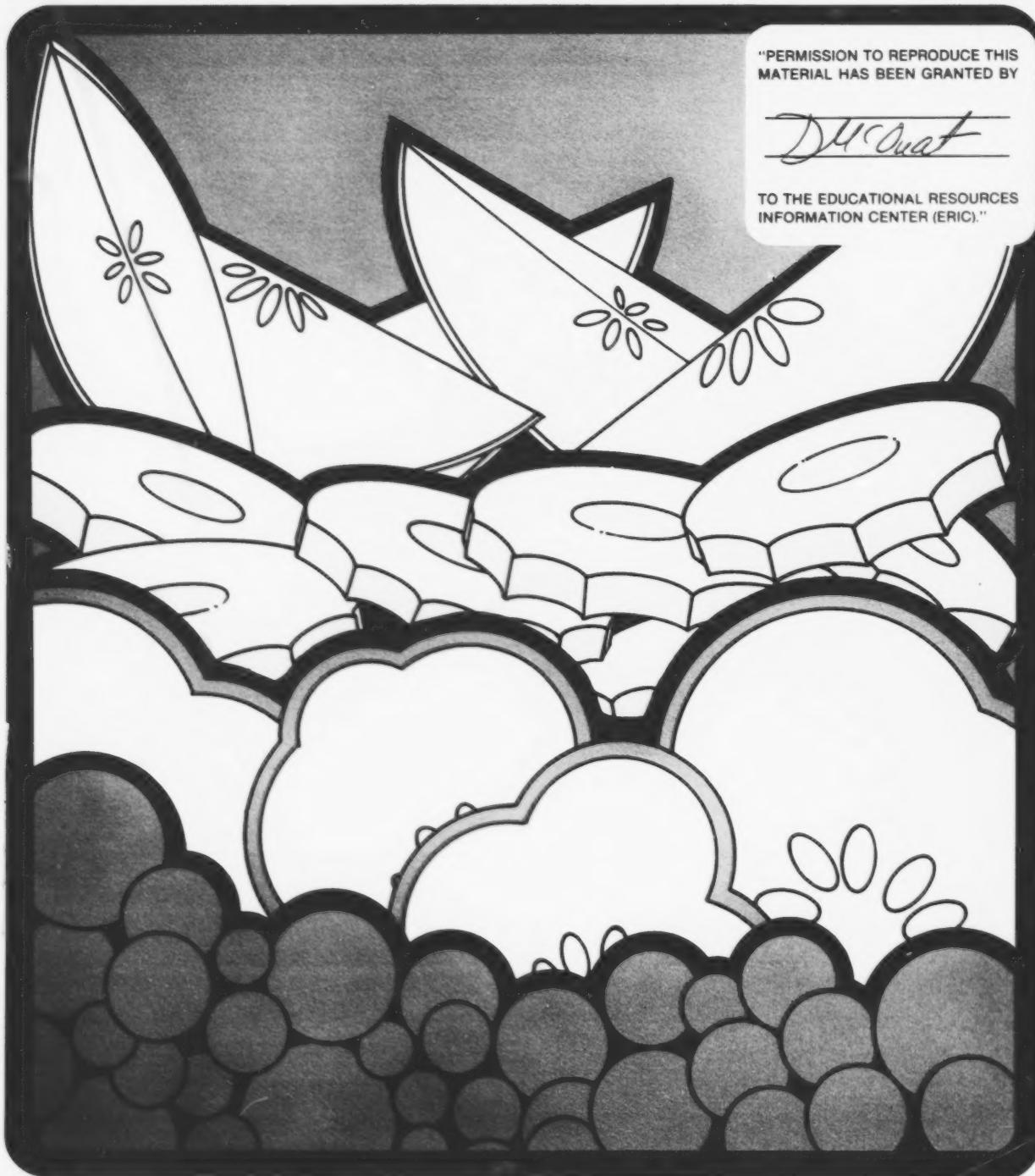
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LEARNING

ACTIVITY

PAGE

5.2

SECTION 5

Organizing Work Stations and Simplifying Work

Basic Food Preparation

State of Florida
Department of Education
Ralph D. Turlington, Commissioner of Education
Tallahassee, Florida
Affirmative action/equal opportunity employer

Division of Vocational, Adult, and Community Education

January 1985

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These materials are endorsed for use in training commercial foods and culinary arts workers by the **Florida Restaurant Association's Education Foundation.**

Purpose and Contents

Purpose

The purpose of LAP 5.2 is to help you organize your work area so that you move more efficiently and simplify your work in the kitchen by making good use of equipment, time, and your energy.

Organizing and simplifying work makes any job easier and faster. Organizing and simplifying work depends on improving work sequences, the steps in which work is done. This means combining appropriate operations or tasks and eliminating unnecessary operations or tasks. Organizing and simplifying work also results in lower costs for the food establishment.

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Introduction

Written Test

You will be able to pass the written test for LAP 5.2 when you can successfully complete the following:

1. Match a list of vocabulary words with their correct definitions. (At least 5 out of 6 must be correct.)
2. Complete statements about moving efficiently by selecting correct phrases. (All 5 must be correct.)
3. Complete drawings to demonstrate timesaving techniques. (All 4 must be correct.)
4. Organize the correct sequence of steps to simplify a given task. (All steps must be in the correct order.)
5. List the steps to complete a given task in the most efficient manner using the assembly-line idea. (All steps must be correct.)

If you feel you already know enough to pass the written test for LAP 5.2 before studying it, talk with your instructor.

Skills Test

You will be able to pass the skills test for LAP 5.2 when you complete the following successfully:

1. Use rhythmic and smooth-flowing motions as you work.
2. Organize your work station and make both hands productive at the same time.

REMEMBER . . . Your final performance will also be judged on how well you:

- organize your work area for efficient production before starting,
- follow the correct steps, in the right order, and
- clean your work area when you are finished.

If you feel you already know enough to pass the skills test before practicing the skills for LAP 5.2, talk with your instructor.

Learning Steps

To help you pass the written and skills tests for this LAP, you should follow these learning steps in order. There are two kinds of activities you will be asked to do:

Written activities will prepare you for the **written test**. They should all be done on a separate sheet of paper. The answers for these activities are in the back of this LAP. **Do not write in this LAP!**

Practice Checklist activities will prepare you for the **skills test**. These will be done in the kitchen or dining area. Check with your instructor before beginning these activities.

Introduction (continued)

1. Read and study **Information Sheet 1: Vocabulary**.
2. Complete **Activity 1: Matching Vocabulary Words**. Check your answers.
3. Read and study **Information Sheet 2: Organizing Work Stations**.
4. Complete **Activity 2: Moving Efficiently**. Check your answers.
5. Read and study **Information Sheet 3: Simplifying Work**.
6. Complete **Activity 3A: Timesaving Techniques**. Check your answers.
7. Complete **Activity 3B: Practice Checklist—Use Rhythmic and Smooth-flowing Motions**.
8. Complete **Activity 3C: Practice Checklist—Organize Work Station and Use Both Hands at the Same Time**.
9. Get **Written Test 5.2** from your instructor and complete it. If you are successful, go on to Step 10; if not, talk with your instructor.
10. Have your instructor evaluate you on **Skills Test 5.2: Organizing Work Stations and Simplifying Work**. If you are successful, you have completed this LAP; if not, talk with your instructor.

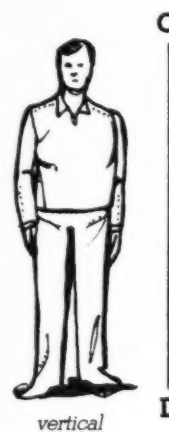
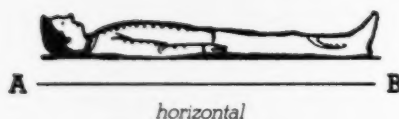
Information Sheet 1

Vocabulary



The following words are used in this LAP. Learning these words at the start will help you understand the instructions and the information in this LAP. Study this list, then check your understanding by completing Activity 1.

1. **efficient**—using the least amount of time and energy possible
2. **fatigue**—tiredness caused by hard work or effort; physical or mental exhaustion; weariness
3. **rhythmic**—involving regular movement or action; the beat of music is rhythmic
4. **sequence**—when one thing follows another in a connected series
5. **horizontal**—flat or level; a person lying down is horizontal; in the diagram below, line A-B is horizontal
6. **vertical**—straight up and down; a person standing up is vertical; in the diagram below, line C-D is vertical



Activity 1

Matching Vocabulary Words



Directions

On a separate sheet of paper, write each vocabulary word and then write the correct definition chosen from the list below.

Vocabulary Words

1. **efficient** _____
2. **fatigue** _____
3. **rhythmic** _____
4. **sequence** _____
5. **horizontal** _____
6. **vertical** _____



Definitions

tiredness caused by hard work or effort; physical or mental exhaustion; weariness

involving regular movement or action

flat or level

when one thing follows another in a connected series

using the least amount of time and energy possible

straight up and down

Check your answers in the back of this LAP. If you missed any, review Information Sheet 1.

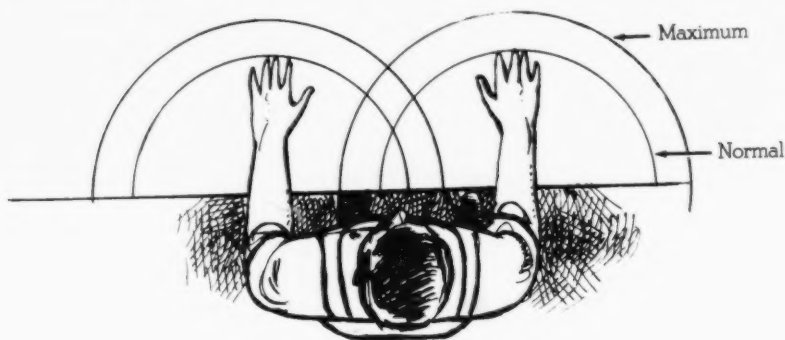


Efficient Movement

Horizontal Work Areas

Imagine that you are working on a horizontal surface, like a kitchen countertop or a tabletop. The normal horizontal work area is the space on the work surface where you can perform work with the *least amount of energy*. To find your normal horizontal work area, make arcs over the horizontal surface with both forearms, holding your upper arms close to your sides. As you can see, it is easy—and uses only a little energy—to reach items in the normal horizontal work area.

By reaching a little further, you can increase your total work area. The work space in which work is done with an *average amount of energy* is called the maximum horizontal work area. To find your maximum horizontal work area, make arcs over the work surface by extending your arms completely and swinging from the shoulder.



Normal and maximum horizontal work areas

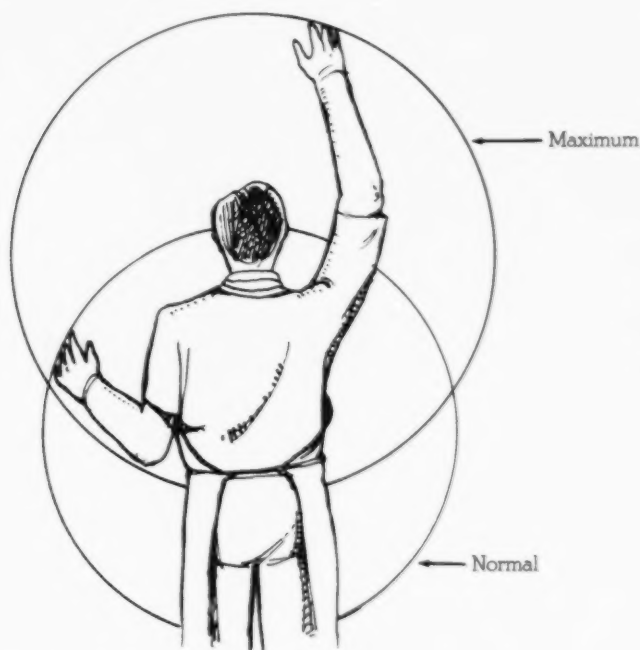
Work performed in the maximum horizontal work area uses more energy than work in the normal area because you reach further. Work done outside the maximum work area creates body strain and causes fatigue more quickly.

Information Sheet 2 (continued)

Organizing Work Stations

Vertical Work Areas

Each hand also has vertical work space. To find your normal vertical work area, keep your elbows close to your sides and move your forearms up and down in a half-circle motion. To find your maximum vertical work area, extend your arms to full length and make the up-and-down arcs.



Normal and maximum vertical work areas

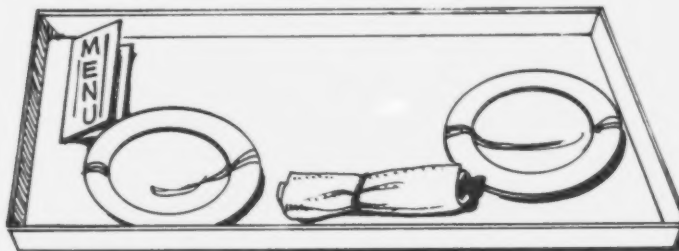
Work performed in the maximum vertical work area uses more energy than work in the normal area because you reach further. Store frequently used or very heavy items in the normal vertical work area, so that you will have to use less energy to reach them. Store items used less often in the maximum vertical space.

Information Sheet 2 (continued)
Organizing Work Stations**Efficient Organization**

How you arrange supplies and equipment in your horizontal and vertical work areas is important. You will tire less quickly if you organize supplies and equipment so that

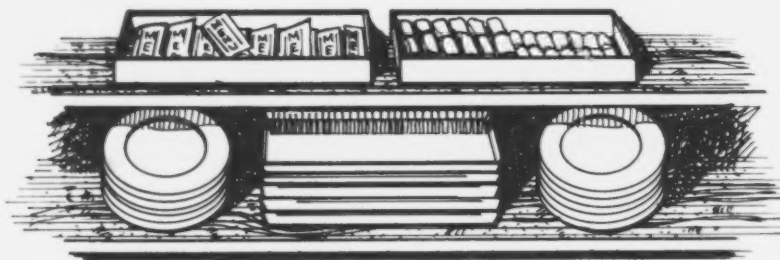
- you can reach them easily,
- you handle each item only once, and
- you can use both hands at the same time.

A good example is the task of setting up hospital trays. The supplies and equipment to be used are stacks of trays, bread-and-butter plates, saucers, menu holders, and silverware already wrapped in napkins. One of each of these items should be placed on each tray, as shown in this illustration:



Arrangement of items on hospital tray

An efficient way to organize the work space to set up trays would look like this:



Arrangement of work space to set up trays

The menu holders and the wrapped silverware should be located on a shelf above the work surface. The bread-and-butter plates and the saucers should be taken directly from storage carts located at the sides of the work space. The trays should be directly in front of you.

Information Sheet 2 (continued)
Organizing Work Stations

In this example, you would pick up the silverware with your right hand and a menu holder with your left hand and put both on the tray at the same time. Then you would pick up a saucer with your right hand and a bread-and-butter plate with your left hand and put both items on the tray at the same time.

Another important part of efficient organization is maintaining the equipment properly. You should understand how each piece of equipment is operated and cleaned; make sure equipment is cleaned before storing it.

To be safe, store knives separately from other utensils. You will avoid accidents and protect the blades of the knives by proper storage.

Activity 2

Moving Efficiently



Directions

On a separate sheet of paper, write out each statement, select the correct phrase from the choices below, and complete each statement by writing out the correct phrase.



1. You will use the least energy working in _____
 - the maximum horizontal area.
 - the normal horizontal area.
2. Hold your upper arm close to your body and move your forearm in an arc over your work surface. The area within the arc is _____
 - the normal horizontal work area.
 - the maximum horizontal work area.
3. To find your normal vertical work area, _____
 - hold your upper arm close to your body and swing your forearm up and down.
 - stretch your arm to full length and make an arc.
4. Store items used infrequently in _____
 - the normal vertical work area.
 - the maximum vertical work area.
5. Stretch out your arm and make an arc over your work surface. The area within the arc is _____
 - the maximum horizontal work area.
 - the normal horizontal work area.

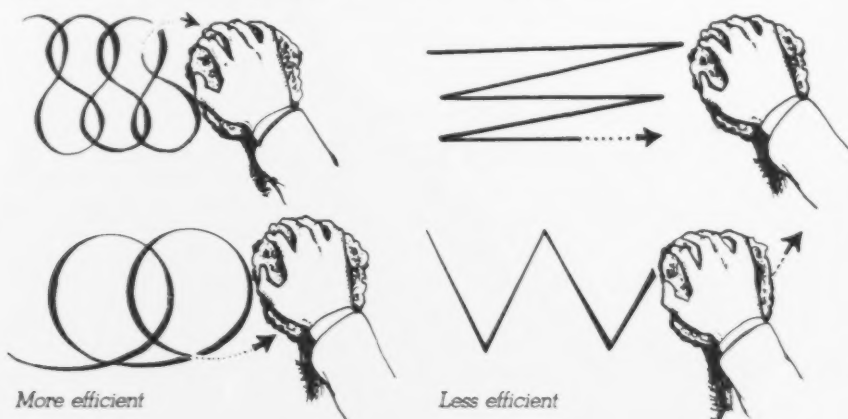
Check your answers in the back of this LAP. If you missed any, review Information Sheet 2.



Simplifying work begins with an awareness of how your body moves efficiently and in a coordinated way. You must train yourself to work quickly, but in a way that is relaxed and tension-free. The more naturally you move, the less tired you will be at the end of the day, and the more work you will have done.

Use Rhythmic and Smooth-flowing Motions

Smooth, curved motions make use of the natural force of your arm. Overlapping figure-eight strokes and circular motions require less energy than short back-and-forth strokes. Apply this principle as often as possible. For example, it is easier to wipe off a table using circular or figure-eight strokes. It is easier and faster to use circular or figure-eight strokes when frosting a cake or stirring batter.



A smooth, curved stroke is efficient in preparing sandwiches.

Place a scoopful of filling mixture on a slice of bread and spread it evenly to the edges. Use the smooth stroke illustrated here.



It is less tiring to use a smooth, continuous stroke. Avoid stops and sudden changes in direction, as these will cause fatigue.

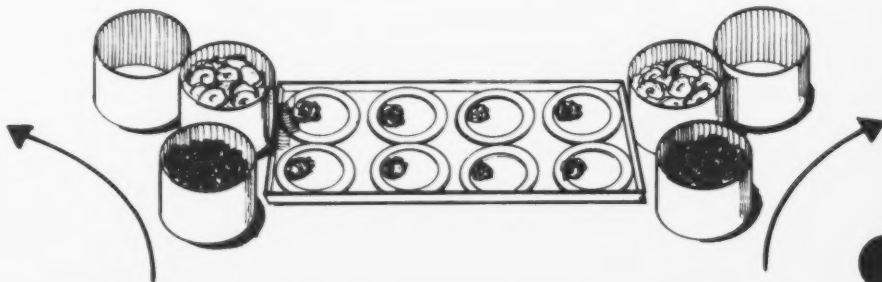
Information Sheet 3 (continued) Simplifying Work

Make Both Hands More Productive

Your efficiency will increase if you organize your work station, supplies, and equipment so that using both hands is easier. Remember to keep the supplies and equipment within the maximum horizontal work space to avoid fatigue.

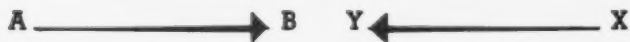
For example, if the task were to put lettuce on salad plates, it would be efficient to have a container of lettuce on each side of the salad plates. You could then put lettuce on the plates with both hands at the same time.

If you have several ingredients, it is efficient to line them up. As you finish with the first ingredient, slide its container outside your work space and move the next ingredient up to the most convenient location.



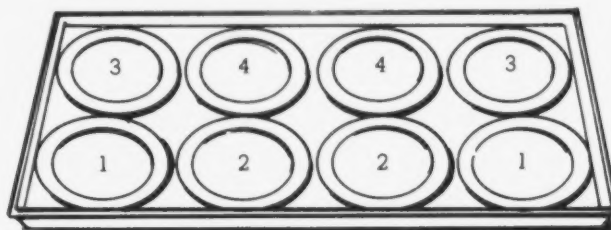
When you are using both hands, it is efficient to place dishes in *pairs* on trays; fill each tray with as many *pairs* of dishes as it will hold.

Your hands should work together, beginning and ending motions at the same time. For example, while the left hand is moving from A to B in the illustration below, the right hand should be moving from X to Y.



Information Sheet 3 (continued) Simplifying Work

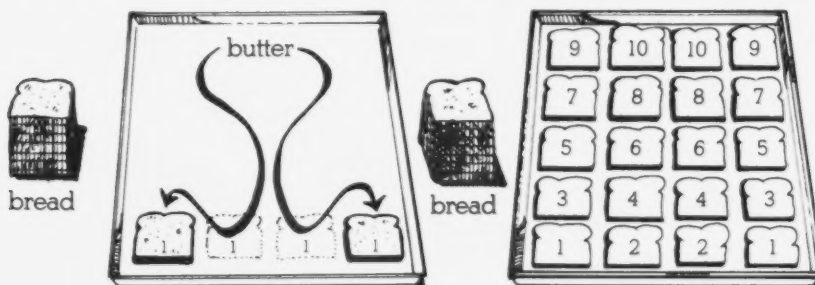
It is efficient for the motion to flow from the outside of the tray or work space in to the center and from the bottom of the tray or work space to the top. For example, the numbers 1 through 4 in the illustration below show the order in which pairs of plates would be placed on a tray in an efficient way.



Place pairs of plates on the tray from the outside in to the center, and from the bottom to the top.

Place ingredients on both sides of the tray in the sequence that they will be used.

Another good example of simplifying work by placing items efficiently is buttering bread to be toasted. The pan is at the center of the work space, and bread is on both sides of the pan. The first step is to spread butter on the pan. Pick up a slice of bread in each hand. Place the first pair of slices onto the pan and push them across the buttered surface to the outside edges of the pan. Pick up another slice of bread in each hand and place them in the butter at the center of the pan. Continue until the tray is filled. In the example illustration below, the tray holds 20 slices (10 pairs) of bread.



Information Sheet 3 (continued)

Simplifying Work

Make Hand and Body Movements Short and Simple

Each motion of the body should use the least possible time and energy. When it is possible to do a task by using a *hand* motion, do not use the whole arm. When it is possible to do a task by using the *arm* motion, do not use the whole body.

Look at how time and energy could be saved in the preparation of biscuits.

Usually, to prepare biscuits, you:

1. work the biscuit dough on a floured board;
2. roll the dough to the desired thickness with a rolling pin;
3. cut the dough with a biscuit cutter;
4. pick up the cut biscuits and place them on a baking sheet;
5. reroll the leftover dough, cut more biscuits, and place them on baking sheet.

You can save time and energy if you:

1. roll the dough out directly on the baking sheet;
2. cut the dough into squares with a knife;
3. separate the squares slightly so that browning will be even.

Use the Assembly-Line Idea

An assembly line is an arrangement of machines, tools, and workers in which a product is put together by having each worker perform a specific task in sequence.

This timesaving method can be used in the commercial kitchen, too.

First, break down the assignment into individual steps. Then, have a different worker perform each different step in sequence.

If you must work alone, it is most efficient to perform the first step for all portions, then perform the second step for all portions, then the third step, and so on. It is less efficient to perform step one, then step two, then step three on a single portion and repeat all steps for the next portion.

For example, If you were asked to prepare shrimp for cocktails using boiled shrimp that still had heads and shells on, an efficient assembly-line method of preparation would be to:

Information Sheet 3 (continued)
Simplifying Work

1. remove heads from all the shrimp;
2. remove shells from all the shrimp;
3. devein all the shrimp;
4. wash all the shrimp.

It would be less efficient to follow each of the four steps for each shrimp one at a time.

Activity 3A

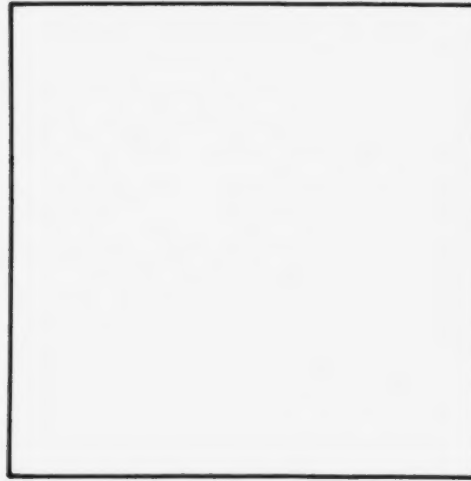
Timesaving Techniques



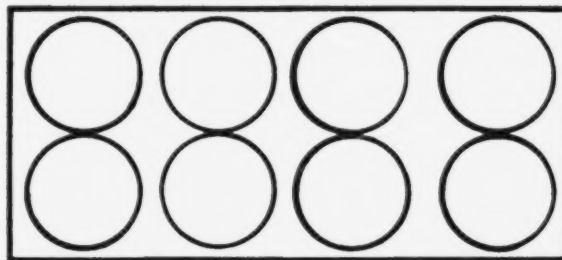
Directions

Copy the illustrations below **on another sheet of paper**. Then complete each illustration as directed.

1. Below is a table that needs cleaning. Draw how you would wipe off the table.



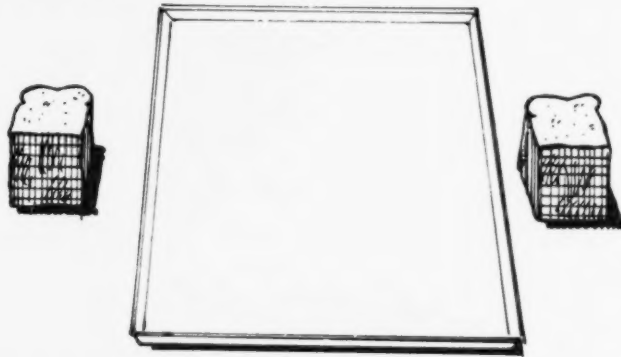
- 2A. Below is a tray of salad dishes. Draw circles where the containers of ingredients should be placed. Draw arrows to show the flow of motion. The ingredients, in the order they are to be placed on the dishes, are lettuce, pineapples, and cherries.



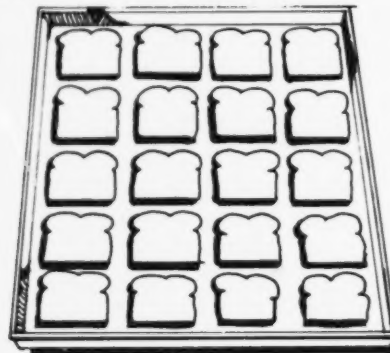
- B. On the diagram you've drawn, number the salad plates as you would if you were placing the ingredients on them. Remember, you should use both hands.

Activity 3A (continued) Timesaving Techniques

3. Below is an empty tray with bread on the sides. Draw arrows and squares to show the flow of motion of buttering bread. You do not have to fill the tray.



4. Below is the tray full of buttered bread. Number how the pieces would have been placed from 1-10.



5. From the list below, choose the steps that would make the most efficient use of time and energy in making biscuits. Write them **on a separate sheet of paper** in the correct order and number them.

Pick up biscuits and place on a baking sheet.

Roll out dough with a rolling pin to the desired thickness.

Roll out dough directly on the baking sheet.

Reroll scrap dough, cut more biscuits, and place on the baking sheet.

Cut dough with a biscuit cutter.

Work biscuit dough on a floured board.

Separate the dough so that browning will be even.

Cut the dough into squares or other shapes with a knife.

Activity 3A (continued)
Timesaving Techniques

6. List on a separate sheet of paper the steps you would use to prepare boiled shrimp with heads and shells still on for shrimp cocktail. Use the timesaving assembly-line techniques.

Check your answers in the back of this LAP. If you missed any, review Information Sheet 3.

Activity 3B

Practice Checklist: Use Rhythmic and Smooth-flowing Motions



Directions

Write down the steps for this task **on a separate sheet of paper**. Then ask your instructor for the tools, equipment, and ingredients you will need to practice this skill. Follow the steps carefully. You may want to look at the information in this LAP to help you perform the task.

Steps

- ✓
1. Wash your hands.
 2. Get a wet cloth or sponge.
 3. Stand in front of a table.
 4. Using smooth, curved motions, clean the table. You may use overlapping figure-eight strokes or circular strokes.

Standards for Evaluation

- ✓
1. Is the work surface clean?
 2. Did the student make efficient motions in wiping the surface?

Activity 3C

Practice Checklist: Organize Work Station and Use Both Hands at the Same Time



Directions

Write down the steps for this task **on a separate sheet of paper**. Then ask your instructor for the tools, equipment, and ingredients you will need to practice this skill. Follow the steps carefully. You may want to look at the information in this LAP to help you perform the task.

Steps

1. Get a recipe that requires the use of both hands.
2. Read the recipe and make any necessary adjustments, conversions, or substitutions.
3. Wash your hands.
4. Assemble all ingredients, dishes, and trays.
5. Place half of the dishes and ingredients on each side of the counter and put the trays in the middle.
6. Place the dishes on the trays working toward the center and from bottom to top. Use both hands at the same time.
7. Place the first ingredient on the dishes in the same sequence that you put the dishes on the tray.
8. Continue placing ingredients on the dishes until the recipe is complete.
9. Remove the completed trays and start more if necessary.
10. Clean and sanitize work area and utensils.

Standards for Evaluation

1. Did the student maintain an efficient sequence of motions in placing the ingredients on the dishes?
2. Were all ingredients placed on all dishes in the same order?



Activity 1:
Matching Vocabulary Words

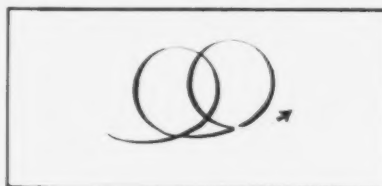
1. **efficient**—using the least amount of time and energy possible
2. **fatigue**—tiredness caused by hard work or effort; physical or mental exhaustion; weariness
3. **rhythmic**—involving regular movement or action
4. **sequence**—when one thing follows another in a connected series
5. **horizontal**—flat or level
6. **vertical**—straight up and down

Activity 2:
Moving Efficiently

1. You will use the least energy working in the normal horizontal work area.
2. Hold your upper arm close to your body and move your forearm in an arc over your work surface. The area within the arc is the normal horizontal work area.
3. To find your normal vertical work area, hold your upper arm close to your body and swing your forearm up and down.
4. Store items used infrequently in the maximum vertical work area.
5. Stretch out your arm and make an arc over your work surface. The area within the arc is the maximum horizontal work area.

Activity 3A:
Timesaving Techniques

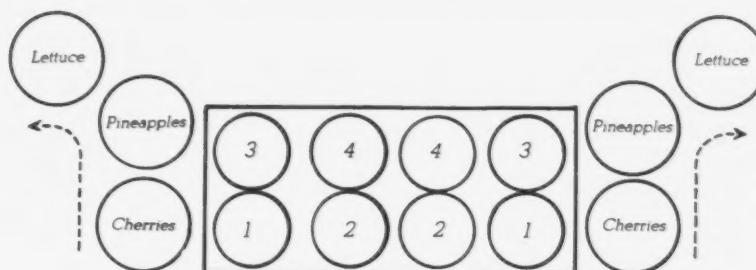
1. Your completed illustration should look like this:



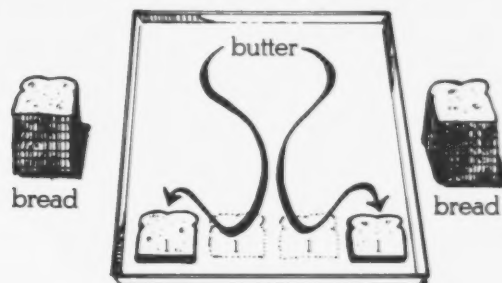
or like this:



2. Your completed illustration should look like this:

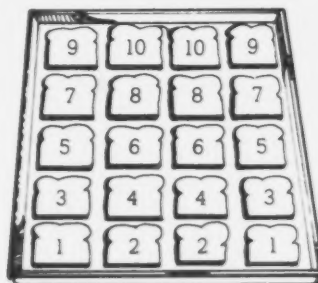


3. Your completed illustration should look like this:



Activity 3A:
(continued)

4. Your completed illustration should look like this:



5. (1) Roll out dough directly on the baking sheet.
(2) Cut the dough into squares or other shapes with a knife.
(3) Separate the dough so that browning will be even.
6. (1) Remove heads from all the shrimp.
(2) Remove shells from all the shrimp.
(3) Devein all the shrimp.
(4) Wash all the shrimp.



State of Florida
Department of Education
Ralph D. Turlington, Commissioner of Education
Tallahassee, Florida
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Division of Vocational, Adult, and Community Education

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IE 318 BK 85

INSTRUCTOR'S

GUIDE

LAP

5.2

Organizing Work Stations and Simplifying Work

Basic Food Preparation



Sponsored and published by:
Florida Department of Education
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Produced by:
The Center for Studies in Vocational Education
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Instructional Matrix

Directions

If you want to use only part of the materials in this LAP, use this matrix to help you select what you need.

Objectives	Instructional Materials	Practice and Feedback	Evaluation
Knowledge Objectives	Information Sheets	Written Activities	Written Test Items
1. Match vocabulary words with their correct definitions. (At least 5 out of 6 must be correct.)	1: Vocabulary	1: Matching Vocabulary Words	Part I: 1-6
2. Complete statements about moving efficiently by selecting the correct phrase to complete a sentence. (All 5 must be correct.)	2: Organizing Work Stations	2: Moving Efficiently	Part II: 1-5
3. Complete illustrations to demonstrate ways to simplify work. (All 4 must be correct.)	3: Simplifying Work	3A: Timesaving Techniques	Part III: 1-4
4. Organize the correct sequence of steps to simplify a given task. (All steps must be in the correct order.)	3: Simplifying Work	3A: Timesaving Techniques	Part III: 5
5. List the steps to complete a given task in the most efficient manner using the assembly-line idea. (All steps must be correct.)	3: Simplifying Work	3A: Timesaving Techniques	Part III: 6
Skill Objectives	Information Sheets	Practice Checklists	Skills Test Items
1. Make rhythmic and smooth-flowing motions as you work.	3: Simplifying Work	3B: Make Rhythmic and Smooth-flowing Motions	Part I
2. Organize your work station and make both hands productive at the same time.	3: Simplifying Work	3C: Organize Your Work Station and Use Both Hands at the Same Time	Part II

Notes to the Instructor

General Notes

This LAP is about techniques to improve efficiency in the commercial food establishment. Emphasis is placed on efficient organization and movement and on the elimination of unnecessary steps in food preparation. Students should complete this LAP before beginning any of the food preparation LAPs.

OPPS/V-TECS

There are no Florida **OPPS** (Occupational Proficiency Performance Standards) or Florida/**V-TECS** (Vocational-Technical Education Consortium of States) covered by this material.

Career MAP

The materials in LAP 5.2 cover or are related to the following Commercial Foods and Culinary Arts Career MAP (Career Merit Achievement Plan) competencies:

Director and monitor operation of meal assembly lines.
Organize work station.

Special Needs

There are no materials for students who are educable mentally retarded/handicapped (EMR/EMH) or academically disadvantaged.

Suggested Instructional Procedures

Individual Instruction

If you choose to use this LAP as a self-paced, self-instructional unit, have the student(s) follow the learning steps in the LAP, as listed below.

Learning Steps in LAP 5.2

1. Read and study **Information Sheet 1: Vocabulary**.
2. Complete **Activity 1: Matching Vocabulary Words**. Check your answers.
3. Read and study **Information Sheet 2: Organizing Work Stations**.
4. Complete **Activity 2: Moving Efficiently**. Check your answers.
5. Read and study **Information Sheet 3: Simplifying Work**.
6. Complete **Activity 3A: Timesaving Techniques**. Check your answers.
7. Complete **Activity 3B: Practice Checklist—Make Rhythmic and Smooth-flowing Motions**.
8. Complete **Activity 3C: Practice Checklist—Organize Work Station and Use Both Hands at the Same Time**.
9. Get **Written Test 5.2** from your instructor and complete it. If you are successful, go on to step 10; if not, talk with your instructor.
10. Have your instructor evaluate you on **Skills Test 5.2**. If you are successful, you have completed this LAP; if not, talk with your instructor.

Group Instruction

If you choose to use this LAP as a unit of instruction for more than one student, the following teaching steps are suggested.

Teaching Steps for LAP 5.2

1. Introduce the subject of organizing work stations and simplifying work.
2. Discuss the objectives in LAP 5.2.
3. Discuss the vocabulary words with the group.
4. Have each student read the information sheets and do the written activities in the LAP.
5. As a group, discuss organizing work stations.

Suggested Instructional Procedures (continued)

6. Demonstrate how to find the normal horizontal and vertical work areas. Have the students practice with your assistance.
7. Demonstrate setting up a work station.
8. As a group, discuss simplifying work.
9. Demonstrate the timesaving techniques in Information Sheet 3. Have the students practice with your assistance.
10. Give the students **Written Test 5.2** to complete. Evaluate the results, using the Answer Key in this Instructor's Guide. Make special arrangements for those who do not master this unit.
11. Use **Skills Test 5.2** to evaluate each student. Assign students who do not master the tasks satisfactorily to practice more in the kitchen, with some assistance.
12. Use the additional instructional activities/enrichment with the group or with individual students.

Additional Instructional Activities/Enrichment

Suggested Reading

Ross, Lynne Nannen. *Work Simplification in Food Service: Individualized Instruction*. Ames, IA.: Iowa State University Press, 1972.

Written Test 5.2

I. Matching Vocabulary Words

Directions

Match each vocabulary word below with the correct definition. Write the letter of the correct definition in the blank beside the word.

Vocabulary Words

- _____ (1) **rhythmic**
- _____ (2) **sequence**
- _____ (3) **vertical**
- _____ (4) **horizontal**
- _____ (5) **fatigue**
- _____ (6) **efficient**

Definitions

- a. when one thing follows another in a connected order
- b. using the least amount of time and energy possible
- c. straight up and down
- d. tiredness caused by hard work or effort; weariness
- e. level, flat
- f. involving regular movement or action

Written Test 5.2 (continued)

II. Moving Efficiently

Directions

Circle the letter of the correct phrase to complete each sentence below.

1. To find your normal vertical work area
 - a. make an arc by holding your upper arm close to your side while swinging your forearm up and down.
 - b. make a circle with your elbow and arm.
2. To find your maximum horizontal work area
 - a. extend your arm and reach upward as far as possible.
 - b. make an arc over the work surface by extending your arm full length and swinging from the shoulder.
3. Normal vertical work area is used to store
 - a. items used less often.
 - b. items used more often.
4. The work space requiring the least amount of energy is
 - a. the maximum horizontal work area.
 - b. the normal horizontal work area.
5. Hold your upper arm close to your side and make an arc with your forearm over the work surface. The area within this arc is
 - a. the normal vertical work area.
 - b. the normal horizontal work area.

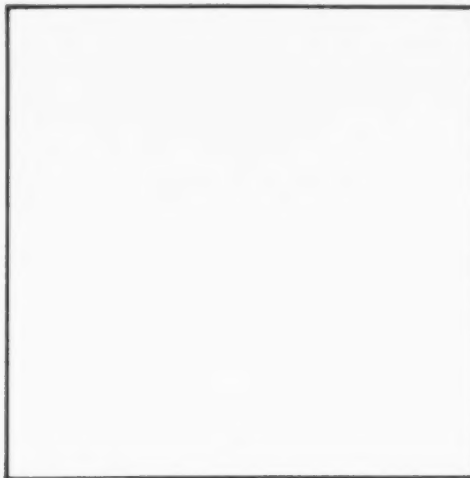
Written Test 5.2 (continued)

III. Timesaving Techniques

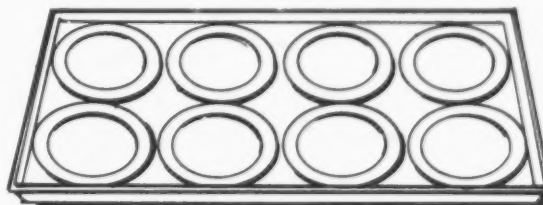
Directions

Complete the illustrations below as directed.

1. Below is a table that needs cleaning. Draw how you would wipe off the table.



- 2.A Below is a tray of salad dishes. Draw circles where the containers of ingredients would go. Draw arrows to show the flow of motion. The ingredients are lettuce, pineapples, and cherries. Label them.

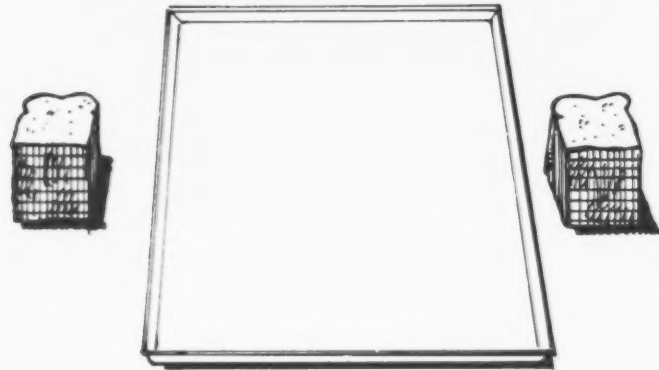


- 2.B On the diagram you've drawn, number the salad plates in the sequence you were placing the ingredients on them. Remember, you should use both hands.

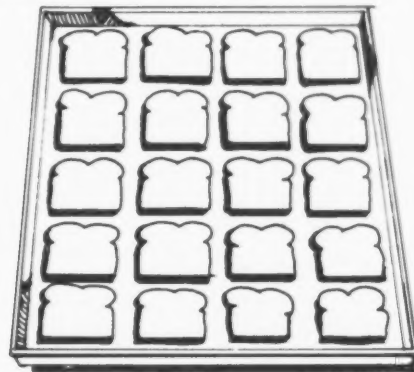
Written Test 5.2 (continued)

III. Timesaving Techniques

3. Below is an empty tray with bread on the sides. Draw arrows and squares to show the flow of motion of buttering bread.



4. Below is a tray full of buttered bread. Number how the pieces would have been placed from 1-10.



Directions

5. Read all the statements in the list below. Choose and order the sequence of steps that would be most efficient in preparing biscuits. Draw a line through steps which can be eliminated. Number the remaining steps in order.

Pick up the biscuits and place on baking sheet.

Roll out dough with a rolling pin to desired thickness.

Work biscuit dough on floured board.

Reroll scrap dough, cut more biscuits, and place them on baking sheet.

Separate dough so browning will be even.

Cut dough with biscuit cutter.

Written Test 5.2 (continued)
III. Timesaving Techniques

Cut dough into squares with a knife.

Roll out dough directly on baking sheet.

Directions

6. Apply the assembly-line idea to the tasks of washing, drying, scraping, and rinsing dishes. Write out the most efficient sequence of steps. Use only one sentence for each step.

Answer Key for Written Test

Each section in the Written Test 5.2 covers one objective and each should be evaluated separately. Criteria for evaluating each section are suggested below.

- I.** To master this objective, the student should answer at least 5 out of 6 items correctly.

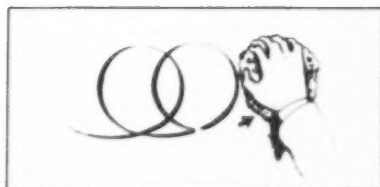
- | | |
|------|------|
| 1. f | 4. e |
| 2. a | 5. d |
| 3. c | 6. b |

- II.** To master this objective, the student should answer all of these items correctly.

- | | |
|------|------|
| 1. a | 4. b |
| 2. b | 5. b |
| 3. b | |

- III.** To master this objective, the student should complete all of the illustrations and questions correctly.

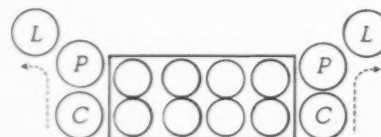
1.



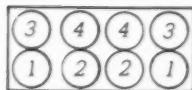
or



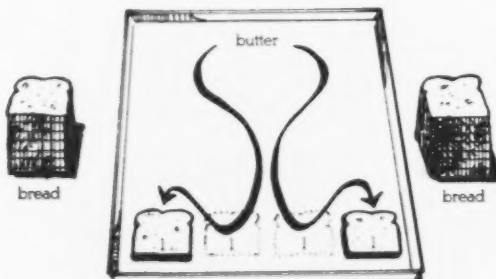
2A.



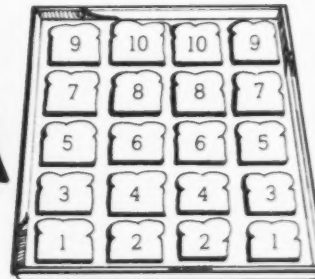
2B.



3.



4.



5. Step 1. Roll out dough directly on baking sheet.
Step 2. Cut dough into squares with a knife.
Step 3. Separate dough so browning is even.
(All other statements should be crossed out.)
6. Step 1. Scrape all the dishes.
Step 2. Wash all the dishes.
Step 3. Rinse all the dishes.
Step 4. Dry all the dishes.

Skills Test 5.2

Organizing Work Stations and Simplifying Work

Student's Name _____ Date _____

The Student Can:

Yes No

I. Make rhythmic and smooth-flowing motions during work.

II. Organize a work station efficiently and make both hands productive at the same time.



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